Amendments to the Specification

1. Please amend paragraph [0012] as follows:

[0012] In accordance with the present invention, an apparatus and method are provided for achieving substantially intimate rolling contact between a portion of a donor sheet and a portion of an acceptor element in a laser-induced thermal transfer printer which comprises a laser imaging head. The system includes a rotatably mounted cylindrical drum, an acceptor element which may be a sleeve-type acceptor or an acceptor sheet affixed to and supported by the cylindrical drum, a rotatably mounted dispensing roller for dispensing a donor sheet, and a rotatably mounted receiving roller for receiving the donor sheet, so that the donor sheet is extended between the dispensing roller and the receiving roller. The system also includes a plurality of rotatably mounted contact rollers configured to bring a portion of the donor sheet extended between the dispensing roller and the receiving roller into substantially coextensive contact ~~with~~ along the width of a portion of the acceptor element. The laser imaging head does not contact either the donor sheet or the acceptor element.

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2. Please amend paragraph [0015] as follows:

[0015] In accordance with another exemplary embodiment of the present invention, the contact rollers comprise a first and second contact roller in contact with the cylindrical drum, and configured so that the portion of the donor sheet brought into substantially coextensive contact, which may be either substantially static contact or substantially intimate rolling contact, with the acceptor element is the donor sheet portion located between the first and second contact rollers. Preferably, the first and second contact rollers are spring loaded contact rollers.

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3. Please amend paragraph [0018] as follows:

[0018] In accordance with another exemplary embodiment of the present invention, the laser-induced thermal transfer printer comprises a laser imaging head for providing scanning laser energy to transfer material from the donor sheet to the acceptor element to form a representation of an image on the acceptor element, and the portion of the donor sheet brought into substantially coextensive contact with the acceptor element is the donor sheet portion located generally proximate to the laser imaging head.

4. Please amend paragraph [0019] as follows:

[0019] In accordance with another exemplary embodiment of the present invention, contact rollers are not utilized. This exemplary embodiment includes a rotatably mounted cylindrical drum, an acceptor element which is an acceptor sheet affixed to and supported by the cylindrical drum, a rotatably mounted dispensing roller for dispensing a donor sheet, and a rotatably mounted receiving roller for receiving the donor sheet. The donor sheet is located between the dispensing roller and the receiving roller, and the dispensing roller and receiving roller are configured to bring a portion of the donor sheet located therebetween into substantially coextensive contact, which may be either substantially static contact or substantially intimate rolling contact, with a portion of the acceptor element.

5. Please add the following sentences after paragraph [0029]:

Figure 14 illustrates a perspective view of the embodiment illustrated in Figure 5.

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Figure 15 illustrates a perspective view of the embodiment illustrated in Figure 7.

Figure 16 illustrates a perspective view of the embodiment illustrated in Figure 8.

Figure 17 illustrates a perspective view of the embodiment illustrated in Figure 9.

6. Please amend paragraph [0031] as follows:

[0031] Fig. 1 depicts a schematic representation of prior art components in the field of laser induced thermal transfer printing. In this figure, block 310 represents the electronics, programs, memories, and modulators necessary for the production of laser beams in accordance with image signals as known in the laser printer art. Block 310 controls laser head 214 that projects image-representing rays 308 to the surface of drum 300. A receptor sheet 302 is attached to the drum. A donor sheet 304 is pressed against the receiver sheet either by a vacuum, as described in U.S. Patent Nos. 5,257,038 and 6,204,874 (both of which are incorporated by reference herein) or by a mechanism attached to the ends of the donor sheet, as described in U.S. Patent No. 5,764,268 (herein incorporated by reference) to establish an appropriate pressure to the whole page of the donor-receiver sandwich. In each of U.S. Patent Nos. 5,257,038, 6,204,874, and 5,764,268, as well as U.S. Patent No. 5,734,409, intimate contact between donor and acceptor material is obtained by various complex means. Although primarily dedicated to the production of color proofs, the arrangements described in these patents are equally applicable to the production of printing plates as mentioned in U.S. Patent No. 6,204,874.

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7. Please amend paragraph [0034] as follows:

[0034] Fig. 4 illustrates a schematic diagram of an exemplary embodiment of the laser-induced thermal transfer printing device of the present invention. The extent of the wrapping of the sheet around the drum in Fig. 4 is defined by the angle ß subtended at the center of the drum by the radii joining the center of the drum and the centers of contact rollers 212 ~~and 212'~~. At a given tension value in the donor ribbon, the pressure between the donor and the receiver increases with decreasing radius of curvature. In the embodiments where a receiver sheet is affixed to the drum, a minimum drum size is dictated by the desired receiver sheet size. The contact pressure is controlled by the tension applied to the donor ribbon. The linear speed of the surface of the receiving element attached to the drum is kept identical to the linear speed of the donor sheet, regardless of the amount of material wound around the donor spools. Dispensing roller 208 is preferably controlled by a torque motor in order to maintain taut the section of the donor sheet between the roller 208 and the ~~roller~~ contact roller 212[[']] proximate to the receiving roller 210. Receiving roller 210 is preferably frictionally biased to take up any slack that may be present.

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8. Please amend paragraph [0035] as follows:

[0035] Figs. 5 and 14 depicts ~~an~~ respective end and perspective views of the exemplary embodiment of the laser-induced thermal transfer printer apparatus of Fig. 4. As depicted in Figs. 5 and 14, an acceptor sheet 202, such as a lithographic printing plate substrate for example, is affixed to the outer circumference of a cylindrical drum 38. A donor sheet 206, is provided by dispensing roller 208 and is received by receiving roller 210. Contact rollers 212 cause a portion of donor sheet 206 located between dispensing roller 208 and receiving roller 210 to be brought into substantially coextensive contact ~~with~~ along the width of a portion of acceptor sheet 202 affixed to cylindrical drum 38, so that the donor sheet 206 is located between that portion of acceptor sheet 202 and the laser imaging head 214. The portion of donor sheet 206 which is brought into substantially coextensive contact with acceptor sheet 202 by contact rollers 212

preferably includes only arcuate section 205 the area of acceptor sheet 202 and donor sheet 206 generally proximate to the portions thereof being scanned by the laser imaging head 214. Arcuate section 205 includes projection area 201.

9. Please amend paragraph [0039] and follows:

[0039] Laser imaging head 214 typically contains multiple laser beams for scanning the portion of the donor sheet 206 and acceptor sheet 202 being imaged. The focal spots of the lasers contained in laser imaging head 214 are typically configured to be located at or proximate to the interface between the portions of donor sheet 206 and acceptor sheet 202 located between contact rollers 212, and are configured to move in a reciprocating manner along the direction of the axis of cylindrical drum 38. Such movement of the laser focal spots typically is accomplished by appropriate movement of the laser-imaging head 214 relative to donor sheet 206, or alternatively by rotating one or more mirrors located in the laser imaging head 214.

10. Please amend paragraph [0040] as follows:

[0040] Figure 6 schematically represents the variation of pressure P applied to the drum by the sheet under media tension F along the drum segment where the media sheet contacts the drum. The media sheet M is wrapped on the drum segment between point A where it tangentially contacts the drum and the point A' where it leaves the drum. The maximum pressure is at the top S of the segment. At point S the pressure is given by the equation:

$$S=2KF \sin \theta'$$

where K is a constant and θ' is the angle subtended at the center of the drum by the arc AP. Going clockwise from point S, the pressure gradually decreases to reach a minimum at point A' where the media leaves the drum. The pressure applied at different points such as P' along circular segment S-A' gradually decreases as a function of the angle α subtended at the center of the drum by the are A'P'.

11. Please amend paragraph [0041] as follows:

[0041] Figs. 7 and 15 depicts ~~an~~ respective end and perspective views of another exemplary embodiment of the laser-induced thermal transfer printer apparatus 300 of the present invention. The exemplary embodiment depicted in Figs. 7 and 15 is similar to that depicted in Fig. 5, except that contact rollers 212 are not used to bring donor sheet 206 into substantially coextensive contact with acceptor sheet 202. Instead, donor sheet 206 is brought into contact with acceptor sheet 202 by dispensing roller 208 and receiving roller 210, thereby eliminating the size, cost and complexity associated with contact rollers 212.

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12. Please amend paragraph [0042] as follows:

[0042] As depicted in Figs. 7 and 15, an acceptor sheet 202, such as a lithographic printing plate substrate for example, is affixed to the outer circumference of a cylindrical drum 38. A donor sheet 206 is provided by dispensing roller 208 and is received by receiving roller 210. Dispensing roller 208 and receiving roller 210 are configured to cause a portion of donor sheet 206 located therebetween to be brought into substantially coextensive contact with a portion of acceptor sheet 202 affixed to cylindrical drum 38, so that the donor sheet 206 is

located between that portion of acceptor sheet 202 and the laser imaging head 214. The portion of donor sheet 206 which is brought into substantially coextensive contact with acceptor sheet 202 preferably includes only the area of acceptor sheet 202 and donor sheet 206 generally proximate to the portions thereof being scanned by the laser imaging head 214.

13. Please amend paragraph [0044] as follows:

[0044] Figs. 8 and 16 and 9 and 17 illustrate other exemplary embodiments of the laser-induced thermal transfer printing device of the present invention. The apparatus of Figs. 8 and 16 includes a donor sheet 206, a dispensing roller 208 and receiving roller 210, and contact rollers 212. The apparatus also includes a supporting drum 38 which is associated with the acceptor element in the form of a continuous web comprising a "blank" receiver spool 217, a receiver sheet 219 and an "exposed" receiver spool 218. The drum is made of light and rigid material and can rotate freely. It may be a support or it may be driven by a motor. In the apparatus of Figs. 9 and 17, contact roller 213 is a drive roller, and a second drive roller 215 contacts the surface of the drum 38 between drive roller 213 and imaged receiver spool 217. Contact roller 212 is a pressure roller, and a second pressure roller 216 contacts the surface of the drum 38 between pressure roller 212 and receiver supply spool 218. In Fig. 8 and 9, the extent to which contact is present between the donor and the receiver depends on the combination of the size of the arcuate contact area, the action of the rollers that maintain taut the section of the donor pressing against the drum, and the identity of the linear speed of the donor and receiver. In Figure 8, the two radii connecting the center of the drum and the centers of the two contact rollers define an angle α.

Angle α is analogously defined in Figure 9. The larger the value of the angle α in Fig. 8 and 9, the more substantial is the arcuate section 205 ~~area~~ of contact between donor and acceptor.

14. Please amend paragraph [0045] as follows:

[0045] Fig. 10 illustrates another exemplary embodiment of the laser-induced thermal transfer printing device of the present invention, in which a plurality of the printing device units of Fig. 5 are connected by means of a plurality of transfer systems. The embodiment of Fig. 10 is especially suitable for color proofing, since donor-acceptor contact is limited to an area substantially smaller than a whole sheet of material. The acceptor element is affixed to a curved section of the cylindrical drum. In Figure 10, the curved section corresponds to about one-half of the circumference of the drum. This feature of the invention makes it possible to use material in roll form for the donor as well as for the acceptor. The embodiment described in Figure 10 takes advantage of the fact that laser induced thermal transfer does not require considerable pressure of donor to acceptor. The production of color proofs involves the serial passage of the receptor 304 through four similar units shown at 101, 102, 103, and 104. These units differ only in that each one is dedicated to a different color, as determined by the donor material. For example, 101 can be dedicated to Cyan, 102 to Yellow, 103 to Magenta and 104 to Black. The "blank" receptor material can be supplied either in the form of sheets or roll as shown at 1000 and the exit of the "colored" receptor at 1002. Free-rotating transfer drums are shown at 105, 106 and 107. The supporting drums, that could be freely rotating or driven at a selected speed, are shown at 108, 109, 110 and 111. Similar thermal laser projection units are shown at 112, 113, 114 and 115. The angle θ represents the

contact angle in which receptor and donor move in unison. Input rollers are shown at 116, 117, 118, and 119 and exit rollers at 120, 121, 122, and 123. The acceptor element or sheet is extended between a contact roller of one printing device unit and free-rotating transfer drum 105, 106, or 107, and the acceptor element or sheet is extended between the rotatably mounted transfer drum a contact roller of another printing device unit. The input supply of donor material is shown at 124 for Cyan, 125 for Yellow, 126 for Magenta and 127 for Black. The exit of used donor material is similarly show at 128, 129, 130, and 131. Accurate registration means are provided as is well known in the industry to insure the exact location and superposition of each color at each stage. Thus, Figure 10 schematically depicts a single-pass color-proofing unit representing a substantial progress in the printing field where a substantial number of colored pages is involved.

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